



# D.A.V. PUBLIC SCHOOL, NEW PANVEL

2025-2026

## SUMMER HOLIDAY ASSIGNMENT WORKSHEET

Subject: Mathematics

STD: VIII

.....

### Solve the following

1. How many natural numbers lie between  $5^2$  and  $6^2$ ?
2. A square board has an area of 144 square units. How long is each side of the board?
3. If one number of Pythagorean triplet is  $2m$ , then the other two members are
4. The hypotenuse of a right triangle with its sides of lengths  $3x$  and  $4x$  is \_\_\_\_\_.
5. Assertion (A): Between 50 and 60, the perfect square number is 54.  
Reason(R): A perfect square is a number that can be expressed as the product of an integer by itself.
6. Find the value of  $\sqrt{248 + \sqrt{52 + \sqrt{144}}}$
7. Find the side of a square whose area is equal to the area of a rectangle with sides 6.4 m and 2.5 m
8. What is the least number should be subtracted from 1385 to get a perfect square? Also find the square root of the perfect square.
9. Rahul walks 12 m north from his house and turns west to walk 35 m to reach his friend's house. While returning, he walks diagonally from his friend's house to reach back to his house. What distance did he walk while returning?
10. There are 500 children in a school. For a P.T. drill they have to stand in such a manner that the number of rows is equal to number of columns. How many children would be left out in this arrangement.
11. Write Pythagorean triplet of 18
12. Find the least number that must be added to 1500 so as to get a perfect square. Also find the square root of the perfect square.
13. Find the smallest square number which is exactly divisible by 4, 9 and 10. Also find the square root of the number so obtained.
14. The area of a square picture is  $20.25 \text{ cm}^2$ , find the length of its side.
15. A gardener has 1000 plants. He wants to plant these in such a way that the number of rows and the number of columns remain the same. Find the minimum number of plants he needs more for this. Also find the number of rows and the number of columns
16. Show that 121 is the sum of 11 odd natural numbers.
17. By what least number should the given number 1575 be divided to get a perfect square number? Also find the square root of the perfect square.
18. Without adding, find the sum of the following:  
(1+3+5+7+9+11+13+15+17+19+21+23)
20. Find the square root of  $21\frac{51}{169}$
21. Find the square root of  $11\frac{2}{3}$  correct to three decimal places

22. Simplify:

$$(\sqrt{81} + \sqrt{0.81} + \sqrt{0.0081}) \times \sqrt{10000}$$

23. Is 2352 a perfect square? if not, find the smallest number by which 2352 must be multiplied so that the product is a perfect square. Find the square root of new number.

24. Find the square root of 144 by the method of repeated subtraction.

25. The area of a square field is 8281 m<sup>2</sup>. Find the length of its side.

26. Find the smallest four-digit number that is a perfect square?

27. Find the square root of 11025 by prime factorization method.

28. Find the square root of 55696 by long division method.

29. Find the smallest square number which is exactly divisible by 8, 15 and 20. Also find the square root of the number so obtained.

30. Find the greatest 5-digit number which is a perfect square. Also find the square root of the number so obtained.

31. If  $\frac{\sqrt{x}}{16} = \frac{15}{8}$ , then find the value of x.

32. If  $\sqrt{\frac{196}{x}} \times \sqrt{\frac{900}{x}} = 4$ , then find the value of x

33. Find the value of  $\sqrt{(133 - 89) + (25 \times 4)}$

34. If  $\sqrt{18225} = 135$ , then find the value of  $\sqrt{182.25} + \sqrt{18225} + \sqrt{1.8225} + \sqrt{0.018225}$

35. **CASE STUDY**

During dance practice in school 6570 students of different schools are arranged in rows such that the number of students in each row is equal to the number of rows. In doing so, the instructor finds out that few children are left out.



- (a) How many students were left out in arrangement?
- (b) What is the number of students forming a square?
- (c) Find the number of children in each row of the square.